AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Currently Amended) An apparatus for minimally invasive applications, said apparatus having a longitudinal axis with said apparatus extending in a radial direction from said longitudinal axis and said apparatus being activated by a change in temperature, ~~the improvement~~ comprising:

a first unit comprising a first structure for at least positioning said apparatus, said first structure including a quantity of shape memory alloy and

a second unit comprising a second structure for at least positioning said apparatus, said second structure including a quantity of shape memory polymer,

said first unit comprising said first structure including said shape memory alloy having a longitudinally extending coiled configuration with more than one wrap, and

said second unit comprising said second structure including said shape memory polymer comprising a cylinder,

wherein said ~~portion~~ first unit is positioned in said ~~first~~ second unit such that changes in ~~transition~~ temperature of said shape memory alloy causes said first unit to change position by a radial contraction and a longitudinal extension and to stretch said second unit comprising said second structure including said shape memory polymer along said longitudinal axis ~~; and~~

~~a second unit connected to said first unit, said second unit comprising a second structure for at least positioning said apparatus, said second structure including~~

~~a second quantity of shape memory alloy and~~

~~a second quantity of shape memory polymer,~~

~~said second quantity of shape memory alloy having a longitudinally extending coiled configuration with more than one wrap, and~~

~~said second quantity of shape memory polymer comprising a cylinder, wherein said portion is positioned in said second unit such that changes in transition of said shape memory alloy causes said second unit to change position thereby moving said apparatus~~.

3. (Currently Amended) The ~~improvement~~ apparatus of Claim 2, wherein said first unit comprising said first structure including said shape memory alloy is embedded within second unit comprising said second structure including said shape memory polymer and wherein changes in temperature of said ~~second~~ shape memory alloy ~~is embedded within~~ causes said first unit to change position by a radial contraction and a longitudinal extension and to stretch said second unit comprising said second structure including said second shape memory polymer along said longitudinal axis.

4. (Cancelled)

5. (Currently Amended) The ~~improvement~~ apparatus of Claim 2, wherein said first unit comprising a first structure including a quantity of shape memory alloy comprises a coil configuration ~~of said first unit is longitudinally compressed and retained in~~ and wherein said second unit comprising said second structure including said shape memory polymer is a cylinder constructed so as to define a hollow tube cylinder with a wall ~~surface~~ and ~~having~~ first unit comprising a first structure including a quantity of shape memory alloy that comprises said coil configuration is embedded in said wall ~~surface thereof and said coil configuration of said second unit is longitudinally compressed and~~

~~retained in said second shape memory polymer so as to define a hollow tube cylinder with a wall surface and having said coil configuration embedded in said wall surface thereof~~.

6. (Currently Amended) The ~~improvement~~ apparatus of Claim 5, wherein said coil configuration of said first unit has an axis coaxial with ~~an~~ said axis of said apparatus and said hollow tube cylinder ~~and said coil configuration~~ of said second unit has an axis coaxial with ~~an~~ said axis of said ~~hollow tube cylinder~~ apparatus.

7. (Withdrawn) The improvement of Claim 5, wherein said coil configuration has an axis off-set from an axis of said hollow tube.

8. (Currently Amended) The ~~improvement~~ apparatus of Claim ~~2~~ 5, including a plurality of additional structures each having a longitudinally extending coiled configuration of shape memory alloy located within a shape memory polymer comprising a cylinder.

9. (Original) The improvement of Claim 8, wherein each coil configuration has a different configuration.

10. (Previously Presented) The improvement of Claim 8, wherein said plurality of structures are in a series configuration to said first structure and said second structure.

11. (Currently Amended) An apparatus for minimally invasive applications, said apparatus having a longitudinal axis with said apparatus

extending in a radial direction from said longitudinal axis and said apparatus being activated by a change in temperature, comprising:

a first structure for at least positioning ~~and bending a portion of~~ said apparatus, said first structure having an axis aligned with said longitudinal axis of said apparatus and said first structure having a longitudinally extending coiled configuration with more than one wrap,

said first structure including a quantity of shape memory alloy in said ~~portion~~ longitudinally extending coiled configuration with more than one wrap, and

a second structure for at least positioning said apparatus,

a quantity of shape memory polymer in said ~~portion~~ second structure,

wherein said quantity of shape memory polymer in said second structure is a cylinder, and

wherein said first structure including a quantity of shape memory alloy is positioned in said second structure ~~generally parallel to said axis and spaced from said axis,~~ that is a cylinder and wherein said first structure including a quantity of shape memory alloy is positioned in said ~~device~~ second structure that is a cylinder such that changes in ~~transition~~ temperature of said shape memory alloy causes said ~~apparatus to bend~~ first structure to change position by a radial contraction and a longitudinal extension and to stretch said second structure along said longitudinal axis.

12. (Previously Presented) The apparatus of Claim 11, wherein said quantity of shape memory alloy has a ribbon configuration.

13. (Withdrawn) The improvement of Claim 1, wherein said quantity of shape memory alloy is composed of NiTiCu.

14. (Previously Presented) The apparatus of Claim 11, wherein said quantity of shape memory alloy is composed of a plurality of shape memory alloy strips.

15. (Previously Presented) The apparatus of Claim 11, wherein said quantity of cylindrical shape memory polymer has a closed cylinder configuration.

16. (Previously Presented) The apparatus of Claim 15, wherein said quantity of shape memory alloy has a coiled spring configuration located within said shape memory polymer.

17. (Previously Presented) The apparatus of Claim 15, wherein said quantity of shape memory alloy is composed of a plurality of strips, and wherein said strips are located in a wall surface of said shape polymer.

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Previously Presented) The apparatus of Claim 15, wherein said quantity of shape memory alloy is composed of a plurality of sections embedded in said shape memory polymer.

23. (Withdrawn) The improvement of Claim 15, wherein said quantity of shape memory alloy is composed of net-like configuration attached to said tubular configuration.

24. (Withdrawn) The improvement of Claim 15, wherein said quantity of shape memory alloy is composed of a compressed spring located in a wall surface of tubular configuration.

25. (Withdrawn) The improvement of Claim 15, wherein said quantity of shape alloy is composed of a plurality of bent sections located in openings said tubular configuration.

26. (Withdrawn) The improvement of Claim 15, wherein said quantity of shape memory alloy is composed of a plurality of ribbons mounted in spaced relation around said tubular configuration.

27. (Withdrawn) The improvement of Claim 16, wherein said plurality of ribbons are of mesh configuration and mounted to a said tubular configuration support members.

28. (Previously Presented) The apparatus of Claim 11, wherein said quantity of shape memory alloy has a coiled spring configuration, wherein said

quantity of shape memory polymer is a cylinder and wherein said coiled spring configuration is embedded in said shape memory polymer.

29. (Withdrawn) The improvement of Claim 1, wherein said quantity of shape memory alloy comprises a plurality of strips, wherein said quantity of shape memory polymer is a tubular configuration and includes a plurality of longitudinally extending openings and a plurality of longitudinal slots, wherein said plurality of strips are located in said plurality of longitudinally extending slots.

30. (Withdrawn) The improvement of Claim 29, additionally including a plurality of light diffusers mounted in certain of said longitudinally extending openings.

31. (Withdrawn) The improvement of Claim 29, wherein said tubular configuration is constructed to mate up to a catheter having a plurality of longitudinally extending openings, whereby said slots and openings in said tubular configuration align with said openings in said catheter.

32. (Previously Presented) The improvement of Claim 11, including a light source connected to said apparatus via a plurality of optical fibers and light control mechanism.

33. (Previously Presented) The apparatus of Claim 32, wherein said light source is a laser.

34. (Currently Amended) An articulated tip for a catheter ~~that has~~ ,said articulated tip having a central axis with said articulated tip extending in a radial direction from said central axis and said articulated tip being activated by a change in temperature, comprising

a composite of shape memory alloy forming a first portion of said articulated tip with said composite of shape memory alloy having an axis that is ~~offset from~~ aligned with said central axis of the articulated tip for a catheter

and shape memory polymer forming a second portion of said articulated tip, wherein said shape memory polymer comprises a cylinder, and wherein said first portion of said articulated tip with said composite of shape memory alloy is positioned in second portion of said articulated tip such that changes in ~~transition~~ temperature of said shape memory alloy causes said first portion of said articulated tip with said composite of shape memory alloy to change position by a radial contraction and a longitudinal extension and to stretch said second portion of said articulated ~~tip to bend~~ along said central axis.

35. (Currently Amended) A device for reversible fine positioning of an object, said device being activated by a change in temperature, comprising:

a member constructed of shape memory polymer portion, wherein said shape memory polymer portion comprises a cylinder and said cylinder has a cylinder central axis,

said member including a shape memory alloy portion with a coiled configuration with more than one wrap, wherein said shape memory alloy ~~axis~~ portion is located in said shape memory polymer portion such that changes in temperature of said shape memory alloy portion causes said shape memory alloy portion to change position by a radial contraction and a longitudinal extension and to stretch said shape memory polymer portion along ~~or adjacent to said~~

~~member in a position wherein said shape memory axis is offset from~~ said cylinder central axis that will cause said device to ~~bend~~ move upon a change in configuration of said shape memory alloy portion, and

means for selectively heating said shape memory alloy portion to change temperature of said shape memory alloy portion causing said shape memory alloy portion to change position by a radial contraction and a longitudinal extension and to stretch said shape memory polymer portion along said cylinder central axis and cause a change in configuration thereof, whereby the change in configuration results in ~~reversible~~ positioning of said object.